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| APPLICATION NO.              | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------|-------------|----------------------|---------------------|------------------|
| 10/539,748                   | 01/06/2006  | Kaoru Usui           | 050398              | 5040             |
| 23850                        | 7590        | 03/20/2008           | EXAMINER            |                  |
| KRATZ, QUINTOS & HANSON, LLP |             |                      | PATTERSON, MARC A   |                  |
| 1420 K Street, N.W.          |             |                      |                     |                  |
| Suite 400                    |             |                      | ART UNIT            | PAPER NUMBER     |
| WASHINGTON, DC 20005         |             |                      | 1794                |                  |
|                              |             |                      |                     |                  |
|                              |             |                      | MAIL DATE           | DELIVERY MODE    |
|                              |             |                      | 03/20/2008          | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/539,748             | USUI ET AL.         |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | MARC A. PATTERSON      | 1794                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____ .                                     |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/20/05, 12/28/06, 2/27/07.</u>                               | 6) <input type="checkbox"/> Other: ____ .                         |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term ‘characterized’ is indefinite as its meaning is unclear. For purposes of examination, the term will be interpreted to mean ‘comprised.’ The term ‘80%’ is indefinite as it is unclear what the percentage is of (weight, etc.). Clarification and / or correction is required.

### ***Claim Rejections – 35 USC § 102(b)***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamaji et al. (U.S. Patent No. 4,317,742).

With regard to Claims 1 – 2, Yamaji et al disclose a heat generating composition which generates heat by contacting with air (column 1, line 7) comprising an exothermic substance (column 11, lines 29 – 38), a reaction promoter (column 7, lines 25 – 27), water (column 10, line 33) and a carbon component (column 9, line 39); the components have a particle size of 300 mm or less (column 12, lines 1 – 3); the water is not a barrier to heating, as heating occurs; because

the composition disclosed by Yamaji et al is identical to the claimed composition, a water mobility value of 5 to 15 is inherent to Yamaji et al

With regard to Claim 3, the claimed aspect of water content being adjusted by a non-oxidative gas is directed to a process limitation rather than a structural limitation, and is therefore given little patentable weight.

With regard to Claim 4, the composition comprises a water soluble polymer (column 9, line 57).

With regard to Claim 5, the composition is sealed in a bag (column 13, lines 45 – 47) having air permeability (column 12, line 68).

With regard to Claim 6, the composition is layered (talc; column 6, lines 17 – 18) and is particulate, as discussed above, and therefore forms plural sectional exothermic parts being separately located and an aggregated exothermic part formed from the aggregation of the sectional exothermic parts.

With regard to Claim 10, the bag is perforated (column 13, line 23).

***Claim Rejections – 35 USC § 103(a)***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 7 – 9 and 11 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaji et al. (U.S. Patent No. 4,317,742).

Yamaji et al disclose a heat generating composition that is sealed in a bag as discussed above. The bag comprises layers of any material (column 13, lines 17 – 22). With regard to Claims 8 and 13, Yamaji et al fail to disclose a heat generating composition having a pressure sensitive adhesive located on the heat generating composition. However, Yamaji et al disclose bonding of the bag by contact bonding (column 13, line 35). It would therefore have been obvious for one of ordinary skill in the art to have provided for a layer of pressure sensitive adhesive, as pressure sensitive provides contact bonding, depending on the desired re – opening of the end product; Yamaji et al would therefore include a heat generating composition having a pressure sensitive adhesive located on the heat generating composition.

With regard to Claim 9, the claim limitation of the heat generating composition being subjected to a compressing treatment is directed to a process limitation, instead of a structural limitation, and is therefore given little patentable weight.

With regard to Claims 11 - 12, the bag disclosed by Yamaji et al comprises papers and is perforated (column 13, lines 17 – 22), therefore having a pattern. Yamaji et al fail to disclose a paper that is colored and is a releasing paper. However, Yamaji et al discloses papers, as discussed above. It would therefore have been obvious for one of ordinary skill in the art to have provided for a releasing paper or a white paper, therefore colored, depending on the desired adhesion and identification of the end product.

With regard to Claim 14, the heat generating structure disclosed by Yamaji et al comprises phosphate (column 8, lines 25 – 30), therefore a negative - ion generating substance; the pressure sensitive adhesive would therefore contain and carry a negative - ion generating substance.

With regard to Claims 7 and 15, the bag comprises a substrate material and a covering material (two or more materials united; column 13, lines 33 – 35) that is gas permeable (column 13, line 7). Yamaji et al fail to disclose a heat generating composition intervened between two films that are non - gas permeable. However, Yamaji et al disclose the selection of ordering of the layers depending on the desired properties of the end product (column 12, lines 30 – 38) and the selection of the permeability depending on the desired properties of the end product (column 13, lines 7 – 10). It therefore would have been obvious for one of ordinary skill in the art, at the time Applicant's invention was made, to have selected the ordering of the layers and permeability depending on the desired properties of the end product as taught by Yamaji et al. The claimed aspect of the layers being punched is directed to a process limitation, rather than a structural limitation, and is therefore given little patentable weight.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marc A Patterson/  
Primary Examiner, Art Unit 1794